

REMARKS

Claims 1-2 and 4-30 remain pending in the present application. Claims 1, 15, 16, 18, 26, and 28 are independent.

Rejections Under 35 U.S.C. § 103

Claims 1-2, 4-8, 10-18, 21-28 and 30 are rejected under 35 U.S.C. § 103 as being unpatentable over Parkvall (U.S. Patent No. 6,542,736 B1) in view of Yun et al. (U.S. Patent 6,600,934 B1). Applicants respectfully traverse.

With regard to independent claim 1, Applicants submit that Parkvall and Yun et al., separately or in any proper combination, do not disclose:

selecting one of a plurality of transmit configurations using at least one of the plurality of mobile station capabilities received, the plurality of mobile station capabilities including at least two capabilities from a list including a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input/multi-output configuration.

The Examiner admits on page 2 of the office action that Parkvall fails to disclose a plurality of transmit configurations including at least two of a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input configuration.

The Examiner further alleges that Yun et al. make up for the shortcomings of Parkvall. Applicants disagree.

The Examiner alleges that Yun et al. teach a plurality of transmit configurations including at least two of a single transmit antenna configuration (citing e.g., FIG. 1, elements 151, 153; and FIG. 3, elements 351, 353), a space time spreading configuration, a selective time diversity configuration, and a multi-input configuration (citing e.g., FIG. 1, element 141, FIG. 3, element 333; Col. 1, lines 22-44; Col. 2, lines 17-25; Col. 4, lines 46-61 and entire document).

Initially, Applicants assert that Yun et al. teaches selection transmit diversity only and not any of the other transmit configurations. This is made apparent by Yun et al. at Col. 1, lines 7-12 where Yun et al. state that the present invention relates to a device and method for communication data with selection transmit diversity (STD). Further, FIGs. 1 and 3, which the Examiner relies on to allegedly show a single transmit antenna configuration, are described as a block diagram of a conventional STD transmitting device and a block diagram of an STD transmitting device according to the present invention, respectively. Moreover, Applicants assert that the first antenna 151, the second antenna 153 and the switch 141 of FIG. 1, all work together to support the STD system of FIG. 1 as described at Col. 1, lines 22-44 and Col. 2, lines 17-25. Furthermore, Applicants assert that the first antenna 351, the second antenna 353 and the switch 333 of FIG. 3 all work together to support the STD system of FIG. 3 as described at Col. 4, lines 20-61. Applicants submit that Yun et al. only disclose a selective time diversity configuration, and

not a selecting of at least one of a single transmit antenna configuration, a space time spreading configuration, and a multi-input/multi-output configuration. Therefore, Yun et al. cannot disclose or suggest selecting at least two capabilities from a list including a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input/multi-output configuration as recited in claim 1.

With regard to independent claims 15, 16, 18, 26, and 28, claims 15, 16, 18, 26 and 28 include similar limitations as claim 1 and are allowable at least for the reasons stated for claim 1.

With regard to dependent claims 2, 4-8, 10-14, 17, 21-25, 27 and 30, Applicants submit that claims 2, 4-8, 10-14, 17, 21-25, 27 and 30 are allowable at least because they each depend from at least one of independent claims 15, 16, 18, 26, and 28.

Accordingly, Applicants respectfully request that the Examiner withdraw the art grounds of rejection.

Claim 9 is rejected under 35 U.S.C. §103(a) as being unpatentable over Parkvall in view of Yun et al. and in further view of Allpress et al. (U.S. Patent 6,392,988 B1). Applicants respectfully traverse.

As discussed above, Parkvall combined with Yun et al. fail to disclose selecting one of a plurality of transmit configurations using at least one of the

plurality of mobile station capabilities received, the plurality of mobile station capabilities including at least two capabilities from a list including a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input/multi-output configuration as recited in claim 1.

The Allpress et al. reference is directed to a transmitter architecture employing space time spreading and orthogonal transmit diversity techniques. The Allpress et al. reference does not disclose selecting one of a plurality of transmit configurations using information received from a mobile station wherein the plurality of transmit configurations includes at least two of: a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input configuration. Therefore, Allpress et al. cannot disclose or suggest a selecting as recited in claim 1. Claim 1 is not rendered obvious to one skilled in the art by Parkvall in view of Yun et al. and in further view of Allpress et al. Claim 9 is allowable at least because it depends from independent claim 1.

Applicants respectfully request that the art grounds of rejection be withdrawn.

Claims 19-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Parkvall in view of Yun et al. and in further view of Lee et al. (U.S. Patent No. 6,456,604 B1). Applicants respectfully traverse.

As discussed above, Parkvall combined with Yun et al. fail to disclose selecting one of a plurality of transmit configurations using at least one of the plurality of mobile station capabilities received, the plurality of mobile station capabilities including at least two capabilities from a list including a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input/multi-output configuration as recited in claim 1.

The Lee et al. reference is directed to a data communication method in a mobile communication system. Lee et al. disclose a method that serves to increase channel efficiency by connecting and releasing channels in accordance with the presence/absence of control and traffic data transmitted during packet data communications (Abstract). Lee et al. do not disclose a selecting as recited in claim 1. Therefore, Claim 1 is not rendered obvious to one skilled in the art by Parkvall in view of Yun et al. and in further view of Lee et al. Claims 19 and 20 are allowable at least because they depend from independent claim 1 which Applicants have shown to be allowable.

Accordingly, Applicants respectfully request that the Examiner withdraw the art grounds of rejection.

CONCLUSION

In view of the foregoing, Applicants submit that claims 1-2 and 4-30 are patentable over the relied upon references, and that the application as a whole

is in condition for allowance. Early and favorable notice to that effect is respectfully solicited.

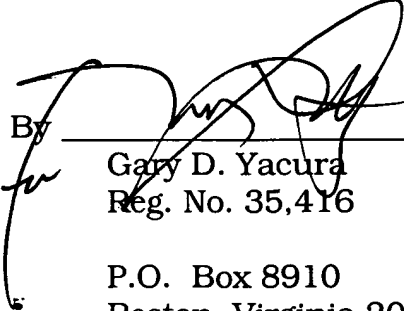
In the event that any outstanding matters remain pending in this application, Applicants request that the Examiner contact the undersigned to discuss such matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By


Gary D. Yacura
Reg. No. 35,416

45,274

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

GDY/MJL/RFS